



Case report

Multiple severe stab wounds to chest with cuts to the ribs. Suicide or homicide?

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ABSTRACT

This paper presents the case of a 36-year-old man found dead in a forest near his home with multiple stab wounds on the chest and abdomen, while the chest wounds penetrated deep into the left pleural cavity and the lung parenchyma, completely cutting through the bone sections of four ribs along the channels of the wounds. In addition, a kitchen knife dug into the ground was found in the immediate vicinity of the corpse. The deceased was wearing a T-shirt with numerous clearly visible holes in places corresponding to the wounds and quite a large tear at the bottom. The post-mortem revealed 19 distinct wounds of the chest as well as a dozen or so superficial marks of cuts or pricks with a pointed tool on the torso. The findings of the police investigation suggested that shortly before death the man was in a bad mood and he had been telling his friends to prepare for his funeral, which was supposed to point to suicidal tendencies. Could, however, such numerous and heavy bodily injuries have been self-inflicted and would such a wounded person still be able to dig a knife into hard forest bed?

If yes, in this case we are most probably dealing with aggressive self-destruction, a type of behavior sometimes observed in people suffering from serious mental disorders.

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1. Introduction

Death by self-inflicted stab wounds is a method rarely chosen by people attempting to commit suicide. Statistically, this type of suicide accounts for approximately 2% of all the cases, whereas most of these involve a single stab wound usually injuring the heart.^{1–7} Therefore, the presence of numerous stab wounds in the body in the first place casts suspicion of homicide, which sometimes, upon a detailed analysis of the wounds and based on the presence of other marks on the body such as tentative injuries and the circumstances of death (e.g. a suicide note, depression, previous suicide attempts) ultimately leads to regarding the case as suicide.^{1,5,7,8} According to the published reports, the findings indicative of suicide include unclothed wound site and the presence of tentative cuts or pricks in the skin, usually on the wrists or near the target wound.^{9,10} Of interest is also Karlsson's report pointing out the transverse arrangement of self-inflicted wounds, associated with the anatomical position of the wrist during self-stabbing, and the rarity of injuries in the rib area.^{11,12} Still, there are occasional reports of suicide in patients with mental disorders, usually in the initial phase of schizophrenia bearing the traits of aggressive self-destruction.¹³ These cases are characterized by considerable brutality of the stabs and chaotic arrangement of

injuries. In these cases, numerous deep wounds with no features “characteristic” of suicide would sometimes be seen.^{5,14,15}

2. Case summary

The body of a 36-year-old man with multiple torso wounds was found by the police in the forest some 200 m away from home after he was reported missing by his wife in the morning. That day the deceased was to go to work as usual but never reached it. The employer notified the wife of her husband's absence from work and the former, alarmed by the news, started the search. As she later testified, her alarm was heightened by the discovery of a missing kitchen knife, the husband's jacket left at home and a kitchen stool placed in front of the house entrance under the ceiling beam. She also reported that for about 2 months her husband had been uneasy, anxious, had had sleeping problems and a clearly depressed mood. A few days before death he had decided to see a psychiatrist for the first time in his life. The doctor diagnosed depression and prescribed him fluoxetine in a dose 20 mg/day. Actually one full blister and one with only few tablets missing, according to prescribed dose was found at his home. Colleagues from work testified that he had recently been behaving strangely, seemed depressed and told them to get ready for his funeral.

The man's body was found lying on the ground, face down with the head placed on the right arm, with the left upper limb adducted in the elbow joint and the hand placed under the chest (Fig. 1). A kitchen knife with an 11-cm-long sharp edged blade, dug up to the

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Fig. 1. The position of the body while it was found. The knife dug into the ground is encircled.

hilt was found 30 cm from the right lower limb (Fig. 2). After turning the body over, numerous stab wounds were revealed on the chest and abdomen as well as holes in the bloody T-shirt, which corresponded to the wounds (Fig. 3). No other objects or traces such as splashes of blood, which might point to a fight or attempted escape of the wounded victim, were found near the corpse.

An examination of the T-shirt showed 30 holes in total, located over the front surface in 4 groups: 23 holes in the upper part on the left side; 4 in the middle, 2 in the bottom part on the right and a bigger one measuring 6×5 cm in the middle on the right, exhibiting features of a tear (without a trace of skin damage in the corresponding area) (Fig. 4).

2.1. Autopsy findings

An external examination of the corpse revealed the presence of numerous stab wounds on the chest and abdomen as well as a dozen or so superficial pricks and several superficial chafes of the epidermis in these areas. There were no injuries to the back of the body. No injuries suggesting defense wounds or hesitation marks were identified either.

The wounds found on the body were located in 3 groups, yet showing different direction and orientation. Each of the groups comprised numerous wounds: 19 distinct wounds located on the left side of the chest over a surface of 20×15 cm; 4 in the middle part of the abdomen over a surface of 3×3 cm and 2 superficial ones on the right side of the abdomen. They included 14 deep



Fig. 2. The knife found dug into the ground next to the body.



Fig. 3. The body turned over showing numerous wounds to the trunk.

wounds of the chest mostly directed slightly downwards, penetrating to the left pleural cavity, one of which, 5×4 cm, suggested that the same area had been stabbed several times (Fig. 5). In the channels of the chest wounds, a multifocal cut of the intercostal structures and a complete cutting of the bone sections of the 3rd,



Fig. 4. The T-shirt showing multiple holes consistent with stab wounds.



Fig. 5. Multiple stab wounds over the left side of the chest.

4th and 5th ribs and twice of the 6th rib (Fig. 6). Eleven deep wound channels were found in the left lung parenchyma and a single cut of the heart sac and a cutting of the heart apex wall, which indicates that the length of the wound channels reached 10 cm. 900 ml of blood was found in the left pleural cavity, and 20 ml in the heart sac. In addition, the chest wounds with channels directed downwards in four places penetrated the diaphragm on the left, with a superficial cut of the wall of the stomach and transverse colon, without interrupting the continuity of their walls. The wounds located on the abdomen were superficial and their channels reached the abdominal muscles without damaging the peritoneum. Additionally, numerous small wounds in the integuments of the chest and abdomen with channels reaching no further than the subcutaneous tissue or skin were revealed.

The *post-mortem* internal examination showed no natural disease.

2.2. Toxicological analysis

The blood and urine sample collected during the *post-mortem* were tested by gas chromatography for ethyl alcohol and gave a negative result.

The urine was further examined for amphetamine and related compounds, benzodiazepines, barbiturates, tricyclic antidepressants, cannabinoids, opiates, cocaine and its metabolites, all with negative results.

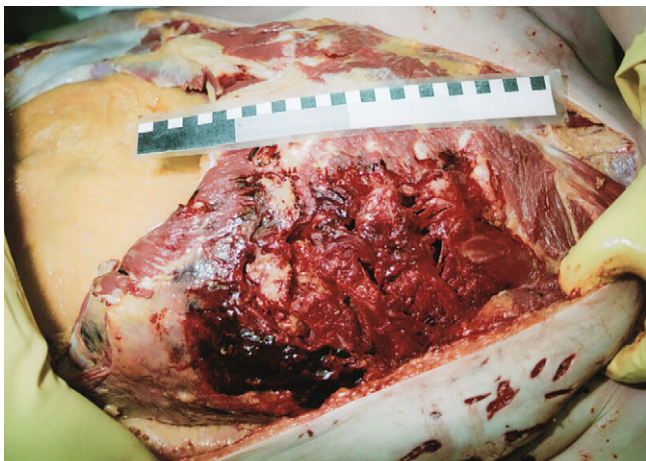


Fig. 6. Rib cage showing injuries to the ribs and intercostal spaces.

3. Discussion

The cause of the man's death was exsanguination as a result of a massive hemorrhage from the damaged lung, pleura and chest walls within the wounds channels.

According to the literature, the findings in this case consistent with suicide comprise: lack of signs of a fight or struggle at the scene, presence of blood limited to the area of the body and no defense injuries.

The grouping of the wounds indicates that the deceased was not moving during the stabbing (neither fighting nor trying to escape). Nonetheless, the chaotic arrangement of the wounds within the groups stands in contradiction to Karlsson's findings, according to which horizontal orientation is more common in suicides than in homicides. He states that the manner of holding the knife depends on anatomical conditions, therefore a person stabbing him or herself would hold the knife rather horizontally.^{11,12}

In a great majority of suicide cases due to stabbing, the stabbed areas are more commonly unclothed.^{2,5,9} In the above case the T-shirt was cut 29 times. However, this is not typical of suicide but doesn't exclude it, as according to literature such findings are not unique and can be found in up to 39% of suicides by self-stabbing.⁷ It can be assumed that the thin T-shirt was not considered by the deceased to be an obstacle to stabbing himself, and therefore he did not uncover the skin.

A similar situation can be noted when analyzing the number of wounds. Usually, a large number of wounds suggest homicide. In this case the total number of wounds exceeded 30, and what is more, 19 of them were deep and significantly damaged 4 ribs. It is, however, believed that in suicide blows are dealt in the intercostal spaces due to the easiness of cutting through soft tissues as opposed to the hard ribs.^{2,11,12} Admittedly, there have been cases of suicide involving multiple stab wounds.^{16–19} Karger and Vennemann¹⁷ reported a case of suicide with 92 stab wounds including rib injuries and Lieske¹⁸ reported 120 self-inflicted wounds. Moreover, in the case reported by Lieske the clothing was extensively cut. Recently, another case of suicide describing 54 incised and stab wounds in different locations (neck, chest, abdomen) was presented.²⁰

The toxicological tests excluded the presence of alcohol and common drugs of abuse whose possible presence could explain the number and severity of the wounds, since a drug-related state of mind can sometimes justify the choice of such a manner of death, as was shown in our previous paper.²¹ However, even the therapeutic blood concentrations of antidepressant medication fluoxetine, a selective serotonin reuptake inhibitor, which has been taken by the deceased for a few days before his death, according to the literature, may contribute to violent self-destructive behavior.^{22,23}

4. Conclusions

The *post-mortem* examination in the presented case has not disclosed characteristics explicitly pointing to suicide or homicide. The following questions are puzzling: the possibility of self-inflicting such severe injuries, including cutting the ribs in several places, the origin of the distinct tear of the T-shirt which might suggest a struggle and the character of the superficial cuts in the body integuments, i.e. whether these are the so-called tentative cuts encountered in suicides. In the case studied, the only arguments for suicide are the police findings from the time before man's death, i.e. signs of depression and forecasts of imminent death, the first days of taking fluoxetine and no evident traces of fight or defense found at the scene. Hence, it is most probable that in this case we are dealing with aggressive self-destruction described in

literature,^{5,13–15} which would explain the chaotic and brutal manner of wounding. However, the question remains whether so numerous and severe bodily injuries could have been self-inflicted and if yes, would a person wounded in such a way still be able to dig the knife deep into the hard forest bed? In my opinion the analysis of the autopsy results with comparison to the death scene findings allow to assume that the injuries were self-inflicted. Therefore, the presented case indicates that a person in a specific mental and emotional condition is capable of committing a seemingly improbable self-destructive act.

Conflict of interest

None declared.

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Ethical approval

None.

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